

## **OW Management Report**

### **Gold King Mine**

**August 11, 2015**

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##### **Background:**

On August 5, 2015, an EPA team working to investigate and address contamination at the Gold King Mine in San Juan County, Colorado, unexpectedly triggered a large release of mine waste water into the upper portions of Cement Creek. Estimates are that the release contained approximately three million gallons of water that was held behind unconsolidated debris near an abandoned mine portal.

##### **Response Coordination:**

Area Command has been established in Durango, Colorado.

The EPA HQ EOC is now fully activated. Shifts will be 8:30 AM – 6 PM, Monday to Friday. No evening or weekend shifts are anticipated. Kevin Tingley will tentatively staff the Water Desk through Friday August 14.

##### **EPA Activities:**

All three Regions are working towards using a common Sampling Plan for data consistency.

EPA is collecting and assessing water quality from the Animas and San Juan Rivers daily. EPA will be jointly evaluating data and information with partners to determine when access to the Animas River will be restored for recreational activities, irrigation and drinking water. EPA, Tribal, State and local officials are coordinating these decisions based on sampling data, risk screening levels and other related factors.

EPA has compared the 8/5 and 8/6 surface water quality data to EPA's screening levels for human health. The State of Colorado has developed screening levels for agricultural exposure. Based on the data thus far, EPA and ATSDR do not anticipate adverse health effects from exposure to the metals detected in the river water samples from skin contact or incidental (unintentional) ingestion. Similarly, the risk of adverse effects on livestock that may have been exposed to metals detected in river water samples from ingestion or skin contact is low.

##### **Region 8:**

Water flowing from the mine (volume fluctuates between 500 and 600 gallons per minute) is being treated in 4 settling ponds using pH adjustment and flocculation. Crews are providing drinking water and sampling wells. Sediment will also be sampled. On-Scene Coordinators (OSCs) are looking at head-gates for irrigation users.

##### **Region 6:**

Private Drinking Water Well Sampling –

- NMED Ground Water Bureau initiated well sampling on August 10, 2015. Three sampling crews were deployed. An EPA staff person accompanied one of the crews. Sampling was conducted at private wells that meet the sampling criteria (500 feet distance from river and wells shallower than 100 feet in depth).
- Fourteen private wells were sampled on August 10 for metals, pH, and conductivity.
- Six additional private wells were sampled for pH and conductivity with metal samples to be gathered later.
- Seven teams are scheduled for private well sampling on August 11, 2015.

#### Surface Water and Sediment Sampling –

- EPA collected surface water samples on August 10, 2015 at nine locations in New Mexico along the Animas River and San Juan River. Basic water chemistry parameters were recorded including the surface water pH. The surface water pH ranged from 7.47 to 8.55. The State of New Mexico has specified a pH range of 6.6 to 9.0 for the Animas River and San Juan River as part of their state water quality standards. All the sample locations on August 10, 2015 had pH levels within the pH range specified by the State of New Mexico.
- The State of New Mexico Environment Department recommended that EPA analyze for chlorides, sulfates, fluoride and nitrates. At the request of New Mexico, EPA will add these parameters to the filtered surface water samples. These analyses will also be run on samples taken prior to today.
- In addition to the surface water samples, one sediment sample was also taken.

#### Region 9:

An EPA Drinking Water Technical Specialist working at the Navajo EPA Drinking Water Office to ensure that no drinking water systems are at risk. Water and sediment samples are being taken at 11 locations, from Shiprock, NM to Mexican Hat, Utah. EPA is focusing on identifying water sources for Agricultural and livestock use. Region 9 is also setting up a 1-800 call in number for questions related to water – this will be shared with Region 6.

#### **Infrastructure Impacts:**

Region 8: all public water systems (PWS) in Region 8, including Tribal, are operational. Durango and Glacier Club in Colorado have closed their intakes and have water available. No Tribal systems in Region 8 are affected. We have been told that there are no water systems in Utah that will be impacted, as there are none that obtain surface water in the area of the plume at this time.

#### Region 6:

#### **New Mexico Water Systems**

System Name	Population	# Days Water Available
Aztec Domestic Water System	6800	10 days
Farmington Water System	47000	60 days
Lower Valley WUA	8428	8 days
Morningstar Water Supply System	6423	7-14 days
Northstar WDWCA	4123	45 days
Southside Mutual Domestic	1593	5 days but depends on Aztec
Upper La Plata WUA	2265	Depends on Aztec and Farmington
Flora Vista	4300	1 day but depend on Aztec
<b>Total Population</b>	<b>80,392</b>	

Region 9:

No new information

**Sampling Results:**

No new information